

SEQUENCE LISTING

<110> Luecke, Hartmut Prosise, Glen

<120> Crystal Structures of T. Foetus Inosine Monophosphate Dehydrogenase In Complex With Substrate, CoFactor and Analogs and Uses Thereof

<130> 66778-355

<140> US 10/663,347

<141> 2003-09-15

<150> 60/410,523

<151> 2002-09-13

<150> 60/412,044

<151> 2002-09-18

<160> 2

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 503

<212> PRT

<213> Tritrichomonas foetus

<400> 1

Met Ala Lys Tyr Tyr Asn Glu Pro Cys His Thr Phe Asn Glu Tyr Leu

1 5 10 15

Leu Ile Pro Gly Leu Ser Thr Val Asp Cys Ile Pro Ser Asn Val Asn
20 25 30

Leu Ser Thr Pro Leu Val Lys Phe Gln Lys Gly Gln Gln Ser Glu Ile 35 40 45

Asn Leu Lys Ile Pro Leu Val Ser Ala Ile Met Gln Ser Val Ser Gly 50 55 60

Glu Lys Met Ala Ile Ala Leu Ala Arg Glu Gly Gly Ile Ser Phe Ile 65 70 75 80

Phe Gly Ser Gln Ser Ile Glu Ser Gln Ala Ala Met Val His Ala Val 85 90 95

Lys Asn Phe Lys Ala Gly Phe Val Val Ser Asp Ser Asn Val Lys Pro 100 105 110

Asp Gln Thr Phe Ala Asp Val Leu Ala Ile Ser Gln Arg Thr Thr His 115 120 125

Asn Thr Val Ala Val Thr Asp Asp Gly Thr Pro His Gly Val Leu Leu 130 135 140

Gly Leu Val Thr Gln Arg Asp Tyr Pro Ile Asp Leu Thr Gln Thr Glu 145 150 155 160

Thr Lys Val Ser Asp Met Met Thr Pro Phe Ser Lys Leu Val Thr Ala

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165
                                    170
His Gln Asp Thr Lys Leu Ser Glu Ala Asn Lys Ile Ile Trp Glu Lys
          180
                                185
Lys Leu Asn Ala Leu Pro Ile Ile Asp Asp Gln His Leu Arg Tyr
                           200
Ile Val Phe Arg Lys Asp Tyr Asp Arg Ser Gln Val Cys His Asn Glu
                       215
                                            220
Leu Val Asp Ser Gln Lys Arg Tyr Leu Val Gly Ala Gly Ile Asn Thr
225
                    230
                                        235
Arg Asp Phe Arg Glu Arg Val Pro Ala Leu Val Glu Ala Gly Ala Asp
                                    250
                245
Val Leu Cys Ile Asp Ser Ser Asp Gly Phe Ser Glu Trp Gln Lys Ile
                                265
            260
Thr Ile Gly Trp Ile Arg Glu Lys Tyr Gly Asp Lys Val Lys Val Gly
                           280
Ala Gly Asn Ile Val Asp Gly Glu Gly Phe Arg Tyr Leu Ala Asp Ala
                        295
Gly Ala Asp Phe Ile Lys Ile Gly Ile Gly Gly Gly Ser Ile Cys Ile
                   310
                                       315
Thr Arg Glu Gln Lys Gly Ile Gly Arg Gly Gln Ala Thr Ala Val Ile
                325
                                    330
Asp Val Val Ala Glu Arg Asn Lys Tyr Phe Glu Glu Thr Gly Ile Tyr
                                345
Ile Pro Val Cys Ser Asp Gly Gly Ile Val Tyr Asp Tyr His Met Thr
                            360
Leu Ala Leu Ala Met Gly Ala Asp Phe Ile Met Leu Gly Arg Tyr Phe
                        375
                                            380
Ala Arg Phe Glu Glu Ser Pro Thr Arg Lys Val Thr Ile Asn Gly Ser
                    390
                                        395
Val Met Lys Glu Tyr Trp Gly Glu Gly Ser Ser Arg Ala Arg Asn Trp
                405
                                    410
Gln Arg Tyr Asp Leu Gly Gly Lys Gln Lys Leu Ser Phe Glu Glu Gly
                                425
Val Asp Ser Tyr Val Pro Tyr Ala Gly Lys Leu Lys Asp Asn Val Glu
                           440
Ala Ser Leu Asn Lys Val Lys Ser Thr Met Cys Asn Cys Gly Ala Leu
                       455
Thr Ile Pro Gln Leu Gln Ser Lys Ala Lys Ile Thr Leu Val Ser Ser
                                        475
Val Ser Ile Val Glu Gly Gly Ala His Asp Val Ile Val Lys Asp Arg
                485
                                    490
Ile Asn Asp Tyr His Pro Lys
            500
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<210> 2

<211> 503

<212> PRT

<213> Tritrichomonas foetus

<220>

<221> MOD RES

<222> 319

<223> Xaa = S-Hydroxycysteine

Met Ala Lys Tyr Tyr Asn Glu Pro Cys His Thr Phe Asn Glu Tyr Leu 10 Leu Ile Pro Gly Leu Ser Thr Val Asp Cys Ile Pro Ser Asn Val Asn Leu Ser Thr Pro Leu Val Lys Phe Gln Lys Gly Gln Gln Ser Glu Ile 40 Asn Leu Lys Ile Pro Leu Val Ser Ala Ile Met Gln Ser Val Ser Gly Glu Lys Met Ala Ile Ala Leu Ala Arg Glu Gly Gly Ile Ser Phe Ile Phe Gly Ser Gln Ser Ile Glu Ser Gln Ala Ala Met Val His Ala Val 90 Lys Asn Phe Lys Ala Gly Phe Val Val Ser Asp Ser Asn Val Lys Pro 105 Asp Gln Thr Phe Ala Asp Val Leu Ala Ile Ser Gln Arg Thr Thr His 115 120 Asn Thr Val Ala Val Thr Asp Asp Gly Thr Pro His Gly Val Leu Leu 135 Gly Leu Val Thr Gln Arg Asp Tyr Pro Ile Asp Leu Thr Gln Thr Glu 150 155 Thr Lys Val Ser Asp Met Met Thr Pro Phe Ser Lys Leu Val Thr Ala 165 170 His Gln Asp Thr Lys Leu Ser Glu Ala Asn Lys Ile Ile Trp Glu Lys 180 . 185 Lys Leu Asn Ala Leu Pro Ile Ile Asp Asp Asp Gln His Leu Arg Tyr 200 Ile Val Phe Arg Lys Asp Tyr Asp Arg Ser Gln Val Cys His Asn Glu 215 220 Leu Val Asp Ser Gln Lys Arg Tyr Leu Val Gly Ala Gly Ile Asn Thr 230 Arg Asp Phe Arg Glu Arg Val Pro Ala Leu Val Glu Ala Gly Ala Asp 245 250 Val Leu Cys Ile Asp Ser Ser Asp Gly Phe Ser Glu Trp Gln Lys Ile 265 Thr Ile Gly Trp Ile Arg Glu Lys Tyr Gly Asp Lys Val Lys Val Gly 280 275 Ala Gly Asn Ile Val Asp Gly Glu Gly Phe Arg Tyr Leu Ala Asp Ala 295 Gly Ala Asp Phe Ile Lys Ile Gly Ile Gly Gly Gly Ser Ile Xaa Ile 310 315 Thr Arg Glu Gln Lys Gly Ile Gly Arg Gly Gln Ala Thr Ala Val Ile 330 325 Asp Val Val Ala Glu Arg Asn Lys Tyr Phe Glu Glu Thr Gly Ile Tyr 340 345 Ile Pro Val Cys Ser Asp Gly Gly Ile Val Tyr Asp Tyr His Met Thr 360 Leu Ala Leu Ala Met Gly Ala Asp Phe Ile Met Leu Gly Arg Tyr Phe 375 Ala Arg Phe Glu Glu Ser Pro Thr Arg Lys Val Thr Ile Asn Gly Ser 390 395 Val Met Lys Glu Tyr Trp Gly Glu Gly Ser Ser Arg Ala Arg Asn Trp

Gln Arg Tyr Asp Leu Gly Gly Lys Gln Lys Leu Ser Phe Glu Glu Gly Val Asp Ser Tyr Val Pro Tyr Ala Gly Lys Leu Lys Asp Asn Val Glu Ala Ser Leu Asn Lys Val Lys Ser Thr Met Cys Asn Cys Gly Ala Leu Thr Ile Pro Gln Leu Gln Ser Lys Ala Lys Ile Thr Leu Val Ser Ser Val Ser Ile Val Glu Gly Gly Ala His Asp Val Ile Val Lys Asp Arg Ile Asn Asp Tyr His Pro Lys